

REPORTS ON THE FLORA OF THE BOSTON  
DISTRICT,—XIX.

## SALICACEAE.

## POPULUS.

*P. ALBA* L. Roadsides and waste land; escaping freely wherever planted, especially along the coast.

[*P. balsamifera* L. Cultivated (?), Danvers (*C. E. Faxon*, May 19, 1884).]

*P. CANDICANS* Ait. Escaping occasionally, wherever planted.

*P. DELTOIDES* Marsh. Introduced from further west; spontaneous at Lowell, Cambridge and Walpole, perhaps elsewhere.

***P. grandidentata*** Michx. Woods and roadsides, common throughout.

*P. NIGRA* L., var. *ITALICA* Du Roi. Occasionally persistent around old places, sometimes escaping.

***P. tremuloides*** Michx. Woods and roadsides, very common throughout.

## SALIX.

*S. ALBA* L. Introduced and escaping at several stations.

*S. ALBA* L., var. *CAERULEA* (Sm.) Koch. Sparingly escaped in Middlesex Fells, Boston and Wellesley.

*S. ALBA* L., var. *VITELLINA* (L.) Koch. Often planted, and thoroughly established, spreading in moist soil; pistillate trees very rare.

*S. AURITA* L. Waste ground off Ipswich St., Back Bay, Boston (*F. F. Forbes*, 1905). Native of Europe and northern Asia.

*S. BABYLONICA* L. Waste places, sparingly escaped around Boston.

***S. candida*** Flügge. Abundant in a swamp near Crooked Pond, Boxford. First found by J. Robinson in 1875. One of several rare plants growing in this isolated limestone area.

***S. cordata*** Muhl. Thickets and swamps, common throughout.

***S. cordata*** Muhl., var. ***angustata*** (Pursh) Anders. Ice railway, Cambridge (*Wm. Boott*, May 18 and June 13, 1854); wet bank, W. Cambridge (*M. L. Fernald*, no date).



**S. cordata** Muhl., var. **myricoides** (Muhl.) Carey. Wet ground, Blue Hills, W. Quincy (*J. R. Churchill*, Apr. 25 and June 21, 1891); Milton (*J. R. Churchill*, April, May and June, 1891).

**S. discolor** Muhl. Swamps and roadside thickets, generally distributed throughout.

**S. discolor** Muhl., var. **eriocephala** (Michx.) Anders. Waltham (Gray Herb., no date); Roxbury (*J. A. Lowell*, 1849); Framingham (*E. C. Smith*, May 9, 1899).

**S. discolor** Muhl., var. **prinoides** (Pursh) Anders. Cordaville Road, Framingham (*E. C. Smith*, May 15, 1899); swamp, Blue Hills, W. Quincy (*J. R. Churchill*, Apr. 25, May 10 and June 21, 1891).

**S. FRAGILIS** L. Recorded as introduced at several stations, but apparently not evenly distributed.

**S. humilis** Marsh. Sand-plains and dry soil; common, especially southward.

**S. lucida** Muhl. Swamps and wet places; frequent, especially northward.

**S. nigra** Marsh. Shores of streams and ponds, frequent.

**S. nigra** Marsh., var. **falcata** (Pursh) Torr. Occasional.

**S. NIGRICANS** Sm. Waste ground off Ipswich St., Back Bay, Boston (*F. F. Forbes*, 1907). Native of Europe and northern Asia.

**S. pedicellaris** Pursh, var. **hypoglauca** Fernald. Peatbogs and swamps in central and northern portions; frequent. First published in *RHODORA* xi. 161, 1909.

**Salix pedicellaris** Pursh, var. **tenuescens** Fernald. Meadows of Concord River, Bedford (*M. L. Fernald*, May 23, 1909). Type station. Published in *RHODORA* xi. 162, 1909.

**S. PENTANDRA** L. Pond shores and roadsides; Wayland, Weston, Wellesley, Brookline.

**S. petiolaris** Sm. Swamps and wet places, frequent.

**S. PURPUREA** L. Wet places, occasional.

**S. rostrata** Richards. Swamps and thickets, common.

**S. sericea** Marsh. Swamps, frequent.

**S. subsericea** (Anders.) Schneider. (See *RHODORA* xi. 9–12, 1909.) Low grounds; Arlington, Cambridge, Brookline, Dedham, Wayland, Sudbury.

**S. tristis** Ait. Sand-plains and dry places, common throughout.

**S. VIMINALIS** L. Introduced and established at Medford, Cambridge, Roxbury, Brookline, Dorchester. See Robinson, Fl. Essex Co., 99, 1880.



## HYBRIDS.

*S. ALBA* L. × *FRAGILIS* L. A large staminate tree, persisting since before 1859, Cambridge (*W. Deane*); pistillate tree, Cambridge (*L. H. Bailey*, May, 1883); a large staminate tree, Dorchester (*J. R. Churchill*, 1887-8).

*S. CINEREA* L. × ***cordata*** Muhl. Waste ground, Back Bay, Boston (*F. F. Forbes*, 1907).

***S. cordata*** Muhl. × ***lucida*** Muhl. Knoll by Brookline water-works land, Dedham (*F. F. Forbes*, 1908).

***S. cordata*** Muhl. × ***pedicellaris*** Pursh., var. ***hypoglauca*** Fernald. Wet soil; Concord, Wayland, W. Roxbury, Dedham.

***S. cordata*** Muhl. × ***petiolaris*** Sm. Swamps; North Andover, Cambridge, Boston, Brookline, W. Roxbury, Dedham, W. Quincy, Sherborn.

***S. cordata*** Muhl. × ***rostrata*** Richards. Reservoir lot, Brookline (*F. F. Forbes*, 1909); border of swamp, Charles River meadow, Dedham (*F. F. Forbes*, 1908).

***S. cordata*** Muhl. × ***sericea*** Marsh. Cambridge, W. Roxbury, Milton, W. Quincy, Sharon, Sherborn.

***S. cordata*** Muhl. × ***subsericea*** (Anders.) Schneider. Cambridge (*L. H. Bailey*, 1884); border of swamp, Cow Island, W. Roxbury (*F. F. Forbes*, 1907 et seq.).

***S. discolor*** Muhl. × ***humilis*** Marsh. Brookline, W. Roxbury, Wellesley, Natick; Middlesex Fells, according to Deane, Fl. Metrop. Park Res., 76, 1896.

[Mr. F. F. Forbes has found in moist land at W. Roxbury a specimen which he pronounces the above hybrid re-crossed with *S. discolor*, also a specimen re-crossed with *S. humilis*.]

***S. discolor*** Muhl. × ***rostrata*** Richards. Wet ground near Hammond's Pond, Newton (*F. F. Forbes*, May 12 and Aug. 18, 1908); W. Roxbury (*F. F. Forbes*, May 10 and Aug. 10, 1908).

***S. humilis*** Marsh. × ***petiolaris*** Sm. Roadside, Boxford (*F. F. Forbes*, May 30, 1909).

***S. humilis*** Marsh. × ***rostrata*** Richards. Dry ground, Natick (*F. F. Forbes*, 1908).

***S. humilis*** Marsh. × ***sericea*** Marsh. Dry soil, Natick (*F. F. Forbes*, 1908).



**S. humilis** Marsh. × **tristis** Ait. Dry sandy soil, Natick (*F. F. Forbes*, 1908).

**S. petiolaris** Sm. × **rostrata** Richards. Swamp, Cow Island, W. Roxbury (*F. F. Forbes*, 1908).

**S. petiolaris** Sm. × **sericea** Marsh. Swamp, Wayland (*F. F. Forbes*, 1912); wet ground, Sherborn (*F. F. Forbes*, May 21, 1907).

**S. petiolaris** Sm. × **subsericea** (Anders.) Schneider. Cow Island, W. Roxbury (*F. F. Forbes*, 1909).

**S. petiolaris** Sm. × **tristis** Ait. Dry sandy soil, Natick (*F. F. Forbes*, 1907).

The older specimens listed above have all been passed upon by the late M. S. Bebb, our best American student of *Salix*. The hybrids found by Mr. Forbes have in most cases been transplanted by him to his willow garden, where they are still under his observation and may be seen by others.

## MYRICACEAE.

### MYRICA.

**M. asplenifolia** L. Dry barren soil, very common throughout.

**M. carolinensis** Mill. Dry sandy soil; very common along the coast, becoming less abundant inland.

**M. Gale** L. Swamps, frequent throughout.

## JUGLANDACEAE.

### CARYA.

**C. alba** (L.) K. Koch (not *C. alba* Nutt.). Dry open woods; common in southern and central portions; reported as far north as Danvers and Essex.

**C. cordiformis** (Wang.) K. Koch. Dry soil, well distributed except in west and northwest, but seldom abundant.

**C. glabra** (Mill.) Spach. Dry rocky soil; common.

**C. microcarpa** Nutt. (in part). Waverley, Belmont (*B. L. Robinson*, June 2, 1895); Dorchester (*W. Deane*, Sept. 21, 1887). Mr. C. E. Faxon writes that there are specimens at the Arnold Arboretum, collected by himself, from Reading, Wellesley Hills, Lexing-



ton and Jamaica Plain. He says, "It is the common round pignut with sweet meat and grows everywhere around Boston, as I understand it."

In *Trees and Shrubs* by C. S. Sargent, Vol. II, Part IV, page 208, August, 1913, is the following note, "CARYA OVALIS, var. OBCORDATA, n. var. . . . . *Carya microcarpa*, Nuttall, *Gen.* ii. 221 (in part) (1818). . . . . This is the most widely and probably the most generally distributed variety. It is common in southern New England . . . . The fruit varies from subglobose to short oblong or to slightly obovate . . . . The nut is usually much compressed, often broadest above the middle, slightly angled sometimes to below the middle, rounded at the base and rounded and often more or less obcordate at the apex."

**C. ovata** (Mill.) K. Koch (*C. alba* Nutt). Dry open woods, common throughout.

In the paper cited above, on page 207, Prof. Sargent publishes the following variety, "CARYA OVATA, var. NUTTALLII, n. var. *Carya microcarpa*, Nuttall, *Silva N. Am.* i. 39, t. 13 (not *Carya microcarpa*, Nuttall, *Gen.* ii. 221) (1842). . . .

"The nut of this variety is rounded, obcordate or rarely pointed at the apex, rounded or abruptly pointed at the base, much compressed, prominently angled. . . . Except in the size of the fruit there appear to be no characters by which this variety can be distinguished from the common Shagbark. I have seen specimens of the variety from eastern Massachusetts . . . ."

Swampscott (*J. G. Jack*, September, 1894).

## JUGLANS.

**J. cinerea** L. Roadsides and open woods; common in north and central sections, but not reported from extreme south.

## BETULACEAE.

### ALNUS.

**A. incana** (L.) Moench. Borders of streams and swamps; Sharon, Canton and Hingham northward.

**A. rugosa** Du Roi. Swamps and borders of streams; very common southward, less common northward.



*A. vulgaris* Hill. Swamps and moist soil, at W. Medford and Waltham; edge of saltmarsh at Brookline and Hingham.

### BETULA.

*B. alba* L., var. *papyrifera* (Marsh.) Spach. Dry woods, scattered trees as far south as Sharon, Hingham and Scituate.

*B. lenta* L. Rich woods, frequent except in southeastern portion, where it has not been reported.

*B. lutea* Michx. f. Rich moist woods; occasional in Essex and Middlesex counties, with scattered trees as far south as Canton and Scituate.

*B. nigra* L. Moist banks of Merrimac River and lower portions of its tributaries from Amesbury west to Tyngsboro and Dracut and across the state-line to Pelham, N. H.; also near Parker River in Georgetown and Byfield [Newbury], and at Ipswich. A few trees in a dry pasture at Groton (C. H. Knowlton, RHODORA xiv. 235, 1912) are probably introduced. There are no other stations for this species nearer than Suffolk Co., Long Island, 115 miles to the southwest.

*B. populifolia* Marsh. Dry sandy soil, abundant everywhere.

### CARPINUS.

*C. caroliniana* Walt. Wet soil and borders of streams in central and northern portions; not reported from southern third of district.

### CORYLUS.

*C. americana* Walt. Dry soil; common throughout.

*C. rostrata* Ait. Generally distributed in dry soil, but not abundant.

### OSTRYA.

*O. virginiana* (Mill.) K. Koch. Dry rocky woods, frequent.

### FAGACEAE.

#### CASTANEA.

*C. dentata* (Marsh.) Borkh. Woods and pastures; abundant in many places in western and central portions, much less common near the coast and to the southward.



**C. pumila** (L.) Mill. Two clumps in a dry thicket, Stony Brook Reservation, W. Roxbury. See E. F. Williams, in RHODORA xiii. 90, 1911. The only New England station.

### FAGUS.

**F. grandifolia** Ehrh. Rich woods, occasional throughout. There are considerable areas covered densely with it on Cape Ann and at Beechwood, Cohasset, but trees are usually scattering.

**F. grandifolia** Ehrh., forma **pubescens** Fernald & Rehder. South Braintree (*A. Rehder*, May 30, 1907). See RHODORA ix. 111-112, 1907.

### QUERCUS.

**Q. alba** L. Dry woods; one of our commonest trees. The largest and best preserved specimens are in Beaver Brook Reservation, Waverley. See Deane, Fl. Metrop. Park Res. 73, 1896.

**Q. bicolor** Willd. Swamps and low ground; common throughout. One very large tree at Waverley. See Deane, Fl. Metrop. Park Res. 74, 1896.

**Q. coccinea** Muench. Dry soil; frequent throughout.

**Q. ilicifolia** Wang. Dry barren soil; very common throughout.

**Q. imbricaria** Michx. A single tree 4 feet 3 inches in girth at 3 feet up; two feet inside the wall of an old pasture, Brush Hill Road, Milton (*G. G. Kennedy*, Oct. 21, 1900; May 16 and May 22, 1902). See RHODORA xiv. 34, 1912.

[*Q. palustris* Muench. Large tree on Beane estate, Ipswich, in field on the back street (*J. Robinson*, Oct. 13, 1891). Spec. in herb. Peabody Acad. Sci. Probably set out, as elsewhere in district.]

**Q. prinoides** Willd. Dry soil, frequent throughout.

**Q. Prinus** L. Rich woods; local in Essex and Middlesex counties and in the Blue Hill region.

**Q. ROBUR** L. Roadside near Sunset Rock, Andover (*A. S. Pease*, Sept. 21, 1903); W. Medford (*C. H. Morss*, October, 1898); thoroughly established and spreading in dry woods, Duxbury (*C. H. Knowlton*, Sept. 24, 1911. See RHODORA xiv. 20, 90, 1912); Salem, according to Robinson, Fl. Essex Co. 97, 1880.

**Q. rubra** L. Woods, rather common.

**Q. velutina** Lam. Dry woods, common throughout.



## HYBRIDS.

**Q. alba** L. × **bicolor** Willd. A natural tree growing in Franklin Park, Roxbury (*J. G. Jack*, 1895–1904).

**Q. alba** L. × **Prinus** L. A non-fruiting tree grows in Concord on the estate of Wm. Brewster, in the edge of woods by a wet run. This tree Mr. A. Rehder tentatively pronounces to be the above hybrid, but fruit is needed for absolute determination.

**Q. ilicifolia** Wang. × **velutina** Lam. Top of Blue Hill (*A. Rehder*, September, 1900). See *RHODORA* iii. 137, 1901.

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WALTER DEANE		

## THE ORIGINAL FLORA OF THE OLD COLONY.

CLARENCE H. KNOWLTON.

THOREAU'S frequent quotations in "Cape Cod," have led me to the book called "Mourt's Relation," a diary of early events in Plymouth colony, probably written by William Bradford and Edward Winslow. The floral notes seem to me more likely from Winslow's pen, for Bradford's own history scarcely mentions a plant, while Winslow on his trip to see Massasoit, and in a letter home to England, writes rather fully of what grew in the new country. The book is well worth reading, for about it still lingers "the charm of Sixteenth Century prose," and the events of the early years at Plymouth are exceedingly interesting. It was published in London in 1622, and there have been several reprints. It has seemed worth while to me to collate the notes on the flora of southeastern Massachusetts for the benefit of *RHODORA* readers.

"Upon the 9th of November following, by break of the day, we espied land, which we deemed to be Cape Cod, and so afterward it proved. And the appearance of it much comforted us, especially seeing so goodly a land and wooded to the brink of the sea. . . . And upon the 11th of November we came to an anchor in the bay [Province-